



2. **DMR Cognizant Official (i.e. authorized agent)**—the person or position authorized to **sign and certify** reports required by permits including Discharge Monitoring Reports [DMR's], Annual Reports, Compliance Schedule submittals, and other information requested by the Division. The Division will send pre-printed reports (e.g. DMR's) to this person. If more than one, please add additional pages.  Same as 1) Permittee

Responsible Position (Title): \_\_\_\_\_

Currently Held By (Person): \_\_\_\_\_

Telephone No: \_\_\_\_\_

Email address \_\_\_\_\_

Organization: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**Per Regulation 61:** All reports required by permits, and other information requested by the Division shall be signed by the permittee or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (i) The authorization is made in writing by the permittee;
- (ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a **named individual** or any individual occupying a named position); and
- (iii) The written authorization is submitted to the Division.

3. **Site/Local Contact**—contact for questions regarding the facility & discharges authorized by this permit  
 Same as Permittee—Item 1

Responsible Position (Title): \_\_\_\_\_

Currently Held By (Person): \_\_\_\_\_

Telephone No: \_\_\_\_\_

Email address \_\_\_\_\_

Organization: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

4. **Certified Operator in Responsible Charge (ORC)** may designate one or both if needed

**A. Wastewater Treatment Facility ORC**

Operator ID # \_\_\_\_\_ Legal Name \_\_\_\_\_

Telephone No: \_\_\_\_\_ Email address \_\_\_\_\_

Organization: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**B. Wastewater Collection System ORC**

Operator ID # \_\_\_\_\_ Legal Name \_\_\_\_\_

Telephone No: \_\_\_\_\_ Email address \_\_\_\_\_

Organization: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_



5. **Billing Contact**  Same as Permittee - Item 1

Responsible Position (Title): \_\_\_\_\_  
Currently Held By (Person): \_\_\_\_\_  
Telephone No: \_\_\_\_\_  
Email address \_\_\_\_\_  
Organization: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

6. **Other Contact Types (check below) Add pages if necessary:**

Responsible Position (Title): \_\_\_\_\_  
Currently Held By (Person): \_\_\_\_\_  
Telephone No: \_\_\_\_\_  
Email address \_\_\_\_\_  
Organization: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Pretreatment Coordinator    | <input type="checkbox"/> Inspection Facility Contact | <input type="checkbox"/> Stormwater MS4 Responsible Person    |
| <input type="checkbox"/> Environmental Contact       | <input type="checkbox"/> Consultant                  | <input type="checkbox"/> Stormwater Authorized Representative |
| <input type="checkbox"/> Biosolids Responsible Party | <input type="checkbox"/> Compliance Contact          | <input type="checkbox"/> Other                                |
| <input type="checkbox"/> Property Owner              |  | _____   |

**B. Permitted Facility Information**

1. Project/Facility Name \_\_\_\_\_  
Street Address or cross streets \_\_\_\_\_  
City, State and Zip Code \_\_\_\_\_ County \_\_\_\_\_  
Type of Facility Ownership  
 City Government  Corporation  Private  Municipal or Water District  
 State Government  Mixed Ownership \_\_\_\_\_

2. **Facility Latitude/Longitude**—List the latitude and longitude of the excavation(s) resulting in the discharge(s). If the exact excavation location(s) are not known, list the latitude and longitude of the center point of the construction project. **If using the center point, be sure to specify that it is the center point of construction activity.**

001A Latitude \_\_\_\_\_ . \_\_\_\_\_ Longitude \_\_\_\_\_ . \_\_\_\_\_ (e.g., 39.703°, 104.933°)  
degrees (to 6 decimal places) degrees (to 6 decimal places)

Horizontal Collection Method:  GPS Unspecified  Interpolation Map - Map Scale Number \_\_\_\_\_

Reference Point:  Project/Facility Entrance  Project/Facility Center/Centroid

Horizontal Accuracy Measure (WQCD Requires use of NAD83 Datum for all references) \_\_\_\_\_

(add additional pages if necessary)



**C. Service Area and Population**

Number of people served by the treatment system: \_\_\_\_\_

Provide a breakdown of the number and type of existing taps in the service area as follows:

| Type of Tap     | Number | Description | Total Estimated Flow (GPD) |
|-----------------|--------|-------------|----------------------------|
| Residential     | _____  | _____       | _____                      |
| Industrial      | _____  | _____       | _____                      |
| Commercial      | _____  | _____       | _____                      |
| Other (specify) | _____  | _____       | _____                      |
| Other (specify) | _____  | _____       | _____                      |

**D. WWTW Design and Operation**

1 Provide a brief description of the overall treatment system design and components:

2 If Existing - when did the facility first begin operating? \_\_\_\_\_

3 Did the WWTW obtain Site Application Approval?  Yes  No

If Yes, provide the following:

Current Site Application Number: \_\_\_\_\_

Date (or anticipated date) of Current Facility Design Approval Letter: \_\_\_\_\_

Approved hydraulic design capacity (maximum monthly average): \_\_\_\_\_  GPD  MGD

Approved organic capacity (lbs. BOD<sub>5</sub>/day): \_\_\_\_\_

**PLEASE INCLUDE A COPY OF THE SITE APPROVAL LETTER**

*Note: All changes in discharge or in the wastewater treatment works (e.g., expansions, re-rating) are subject to the Site Application and Design Approval requirements provided in Colorado Regulation No. 22. If your current Site Application and Design Approval does not accurately reflect the treatment works, contact your local District Engineer Office or the Division for assistance.*



**4 For existing treatment systems, provide the following data on influent flows to the facility during the past calendar year. Effluent flow data may be substituted where there is no influent flow measuring/recorder/totalizer device.**

❖ Average daily flow (GPD) during the three minimum flow months:

|        |       |       |       |
|--------|-------|-------|-------|
| Month: | _____ | Flow: | _____ |
| Month: | _____ | Flow: | _____ |
| Month: | _____ | Flow: | _____ |

❖ Average daily flow (GPD) during the three maximum flow months:

|        |       |       |       |
|--------|-------|-------|-------|
| Month: | _____ | Flow: | _____ |
| Month: | _____ | Flow: | _____ |
| Month: | _____ | Flow: | _____ |

❖ Maximum peak hourly flow (GPD):

\_\_\_\_\_

**5 Provide the following information for all lift stations in the service area:**

| Lift Station Name/No. | Wet Well Volume (Gallons) | Pump Capacity (GPD) | Current Peak Flow (GPD) |
|-----------------------|---------------------------|---------------------|-------------------------|
| _____                 | _____                     | _____               | _____                   |
| _____                 | _____                     | _____               | _____                   |
| _____                 | _____                     | _____               | _____                   |
| _____                 | _____                     | _____               | _____                   |

**6 Provide the following information for each lift station with average daily flow equal to or greater than 2,000 GPD (attach additional sheets as necessary):**

Number of Current Site Application Approval Letter: \_\_\_\_\_

Date of Current Site Application Approval Letter: \_\_\_\_\_

Date of Current Facility Design Approval Letter: \_\_\_\_\_

**7 Describe chemicals used in the operation of the treatment system. This includes chemicals added directly to the treatment process (e.g., chlorine, copper sulfate, other algicides, alum), as well as chemicals which are used adjacent to unit processes (ponds, basins, etc.) which may be carried into the treatment system by storm events, snowmelt or other means. Attach material safety data sheets (MSDSs) where available:**



### E. Flow Measuring and Monitoring Devices

1. Identify the influent and/or effluent flow measuring and monitoring devices present at the WWTW. (Please note that lagoon-type systems require both influent and effluent flow monitoring, while traditional septic systems may select either influent or effluent flow monitoring.)

**Influent Flow Monitoring and Recording Devices Utilized at WWTW (check all that apply):**

- Primary device (e.g., flume, weir) with staff gauge.  
Describe: \_\_\_\_\_
- Secondary Device (e.g., ultrasonic, pressure transducer) for measurement of liquid level within the primary device.  
Describe: \_\_\_\_\_
- Local flow-indication/recording/totalization device.  
Describe: \_\_\_\_\_
- \*\* Describe the physical location of the influent flow monitoring and recording device. \*Note: This existing or proposed flow monitoring location must be depicted on an attached system schematic.

**Effluent Flow Monitoring and Recording Devices Utilized at WWTW (check all that apply):**

- Primary device (e.g., flume, weir) with staff gauge.  
Describe: \_\_\_\_\_
- Secondary Device (e.g., ultrasonic, pressure transducer) for measurement of liquid level within the primary device.  
Describe: \_\_\_\_\_
- Device or method for reading/recording local flow indication for obtaining instantaneous flow readings.  
Describe: \_\_\_\_\_
- \*\* Describe the physical location of the effluent flow monitoring and recording device. \*Note: This existing or proposed flow monitoring location must be depicted on an attached system schematic.

2. Where a general permit is requested, identify and provide justification for any requested modifications to the flow measuring and monitoring requirements provided in the general permit:

3. Is the accuracy of the flow measuring and recording device tested annually?

- Yes       No



**F. Discharge Information**

1. Provide the following information for each point of ground water discharge from the WWTW. (Note that each numbered discharge point must be clearly depicted on the map(s) requested in Section K):

| Outfall Number (e.g., 001A) | Type of Discharge (e.g. leachfiled, land application) | Typical Months of Discharge | Latitude (Degrees, Minutes, Seconds) | Longitude (Degrees, Minutes, Seconds) |
|-----------------------------|---|-----------------------------|--------------------------------------|---------------------------------------|
| _____                       | _____   | _____                       | _____                                | _____                                 |
| _____                       | _____   | _____                       | _____                                | _____                                 |
| _____                       | _____   | _____                       | _____                                | _____                                 |
| _____                       | _____   | _____                       | _____                                | _____                                 |

2. If discharge from the treatment system is intermittent or seasonal, describe the frequency, duration, and flow rate of the discharge:

3. Does the treatment system include bypass and overflow points that would discharge to surface water or to land/groundwater?

- Yes       No

If yes, describe the bypass locations, receiving waters, and the conditions that would cause such a discharge to occur:

**G. Required Information for Impoundments (e.g., Lagoons, Ponds)**

1 Provide the following information for each impoundment included in the treatment system:

| Name or Number of Impoundment | Wetted Surface Area (square ft.) | Function | Type of Liner (or indicate "Unlined") | Has a Seepage Rate Study been conducted? (Yes/No*) |
|-------------------------------|----------------------------------|----------|---------------------------------------|--|
| _____                         | _____                            | _____    | _____                                 | _____  |
| _____                         | _____                            | _____    | _____                                 | _____  |
| _____                         | _____                            | _____    | _____                                 | _____  |
| _____                         | _____                            | _____    | _____                                 | _____  |
| _____                         | _____                            | _____    | _____                                 | _____  |

*IF A SEEPAGE RATE STUDY HAS BEEN CONDUCTED, PLEASE INCLUDE THE STUDY AND RESULTS.*

*Note: Where the applicant indicates that an impoundment is lined, provide any associated seepage rate study (e.g., mass balance calculations).*



G. Required Information for Impoundments (e.g., Lagoons, Ponds) continued

2. Does the treatment system include a waste stabilization pond as the principal process used for secondary treatment (e.g., BOD<sub>5</sub> and TSS removal)?

- Yes       No       Don't Know

If yes, is the waste stabilization pond aerated or non-aerated? \_\_\_\_\_

H. Required Information for Irrigation/Land Treatment Areas  
(Not applicable to leachfields, lagoons, ponds)

1. Identify the Land Application System Components (check all that apply):

- Spray Irrigation       Overland Flow       Ridge and Furrow

Other. Explain: \_\_\_\_\_

2. Will the land application system apply effluent only at Division-approved agronomic rates?

- Yes (If yes, you must submit a LAMP as described in Attachment A)       No

If no, the following information must be included with this permit application:

- Describe the existing vegetative cover at the site. Include plans for any proposed disturbance or planting.
- Describe the proposed rate and schedule of application and its expected effects on ground water quality. Include any model results.
- Describe the effluent storage capacity during periods of inclement weather and/or frozen ground.

3. Have you submitted, or do you intend to submit, a Letter of Intent to use reclaimed water for landscape irrigation, fire protection, or other approved use under the provisions of Regulation No. 84, Reclaimed Water Control Regulation (5CCR 1002-84)?

- Yes       No

I. Proposed Ground Water Monitoring Well Locations

1 Ground water (GW) monitoring requirements are described in the application instructions. If the general permit you are requesting requires GW monitoring wells, or if you are requesting an individual permit, complete this Section. Otherwise, skip to Section J. Note: Ground water monitoring locations must be determined by a qualified person, e.g., Professional Geologist, geotechnical engineer, or other similarly qualified professional hired or employed by the Permittee.

List all existing or proposed down-gradient groundwater monitoring wells to be used for permit-required compliance monitoring:

| Well Number (e.g., 050B, 050C) | Is the well existing (i.e., installed) or proposed? |
|--------------------------------|---|
| _____                          | _____   |
| _____                          | _____   |
| _____                          | _____   |
| _____                          | _____   |



**I. Proposed Ground Water Monitoring Well Locations continued**

List all existing or proposed up-gradient groundwater monitoring wells to be used for permit-required monitoring:

| Well Number (e.g., 050A) | Is the well existing (i.e., installed) or proposed? |
|--------------------------|---|
| _____                    | _____   |
| _____                    | _____   |
| _____                    | _____   |

**\*\* \* Note that all wells listed above must be shown on the site maps requested in Section K.**

- A) For *existing* monitoring wells which are proposed points of compliance, provide the driller's well completion and pump installation report that provides the exact location of each well ( i.e. XXXX feet from the South Section line and YYYY feet from the East Section line); the maximum sustained yield; the well log of the material (clay, sand, shale, etc.) and thickness of each of these layer; the casing record (size, kind and length); the perforated casing (size, kind and length); the grouting record (material, intervals, placement method); the gravel pack (size, interval); the Static Water level and the final pumping level; and the total depth plus the water elevation. Provide the surveyed elevation of the monitoring well's measuring point.

**J. Site-Specific Water Quality Data**

- A. Provide any available data to establish chloride, nitrate, sulfate, and/or total coliform concentrations in ambient or up-gradient ground water.
- B. Provide any available data showing that a well-defined relationship has been developed between total dissolved solids (TDS) and conductivity at the site.

**K. Site Maps and Schematics**

Provide the following site maps and schematics:

- System Schematic:** Provide a schematic clearly depicting all applicable influent and/or effluent flow monitoring locations, influent and effluent sample collection locations (e.g., for BOD<sub>5</sub> and TSS), and up-gradient and down-gradient permit-required ground water monitoring well locations. You may include a written description of the sampling location to further clarify the physical locations. The drawing size should not exceed 11x 17 inches.
- System Overview and Discharge Points:** Provide schematic diagram of the treatment system. Include a line drawing of the entire system, its components, bypass points, and each discharge point and/or land treatment outfall. Show the relationship of the system to buildings, ponds, diversion ditches, treatment processes, and streams within the area of the system. (This may be the same schematic as the System Schematic described above or a separate schematic.) The drawing size should not exceed 11x 17 inches.
- Facility Location:** Submit a location map of the facility property and surrounding area, based on the USGS 7.5 minute quadrangle topographic map series or comparable map, shall be submitted with the following information: (a) facility location; (b) drinking water wells within a one mile radius of the facility in an urban area, or the drinking water wells within a five mile radius in a rural area; (c) the irrigation wells within one mile radius of the facility and indicate the estimated area of influence for each irrigation well.; (d) topography; (e) any known surface area contamination or ground water contamination area; and (f) a North arrow. Map must be no larger than 11 X 17 inches.
- Service Area:** Provide an 8<sup>1/2</sup> x 11 inch map which defines the legal boundaries of the service area.
- Lift Stations:** Provide an 8<sup>1/2</sup> x 11 inch map which shows the locations of lift stations. (This map may be combined with the service area map.)



## L. Site Geologic and Hydrogeologic Information

Provide the following geologic and hydrogeologic information:

- Geology and Hydrogeology:** Sufficient information must be submitted to support the proposed or existing locations of ground water monitoring wells or to support a request for no ground water monitoring. The following information should be provided:
  - A description of the local geology of the site, including all lithologic units from the ground surface to the first impermeable stratigraphic unit and the estimated thickness of each unit.
  - Geologic maps or cross section diagrams.
  - A description of the hydrogeology of the site, including the relationship of this site to any alluvial or bedrock water bearing formations (unconfined, confined, or perched) and surface water (lakes, ponds, ditches or streams).
  - Identification of the aquifer or formation name for each water bearing formation and provide the depth to water (include water elevation) for each.
  - Description of the rate and direction of ground water movement and any unusual geologic or hydrologic features that could affect ground water rate or direction of movement (i.e. faults, fractures).
  - Description of the aquifer characteristics (transmissivity or permeability, porosity and storage capacity) with documented data sources.
  - Potentiometric data of the water bearing formations with documented data sources, where available. Note if water levels are contoured from site data, control points must be annotated with water table elevation and time period of measurements indicated in legend.
  - All map must be legible and no larger than 11 X 17 inches.
  
- Site-Specific Investigations:** Provide any available hydrogeologic investigations or ground-water modeling conducted at this site.

## M. Septage, Biosolids, and Industrial Waste

1 Does the facility accept septage?

- Yes       No

If yes, describe the quantities of septage received and the septage handling and management procedures:

2. Have you submitted, or do you intend to submit an application for coverage under the EPA Region 8 General Sewage Sludge Permit for sludge/biosolids removal, hauling, beneficial use, and/or landfilling?

- Yes       No

3. Are industrial wastes, which contain any of the toxic pollutants or hazardous substances listed in Appendix C, or are from any of the categorical industries listed in Appendix C, discharged to the treatment system?

- Yes       No

4. Are there any facilities for acceptance of wastes, other than domestic septage, by rail, truck or dedicated pipeline?

- Yes       No



**Section N. Certification**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

|                       |             |
|-----------------------|-------------|
| _____                 | _____       |
| Signature of Owner(s) | Date Signed |
| _____                 | _____       |
| Name (Printed)        | Title       |
| _____                 | _____       |
| Signature of Operator | Date Signed |
| _____                 | _____       |
| Name (Printed)        | Title       |

*Both the owner and operator must sign the application. Please print clearly. See the application instructions for definitions of owner and operator.*

Per Regulation 61: In all cases the permit application shall be signed as follows:

- a) In the case of corporations, by a responsible corporate officer. For the purposes of this section, the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the application originates.
- b) In the case of a partnership, by a general partner.
- c) In the case of a sole proprietorship, by the proprietor.
- d) In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official



## APPENDIX A

### Supplemental Application Requirements for General Permit 633000

#### Land Application Management Plan

On a case-by-case basis, the Division may approve wastewater treatment through land application at agronomic rates and grant coverage under *General Permit 633000 for Domestic Wastewater Treatment Works with Land Application at Agronomic Rates*. The term “agronomic rate” refers to a specific rate of effluent land-applied that provides the precise amount of nutrient loading for selected grasses and/or crops, while strictly minimizing the amount of nutrients that percolate beyond the root zone. Coverage under General Permit 633000 will typically be limited to land application at cultivated cropland, tree plantations, pasture, or hayland areas that are not located in wetlands or floodways.

In order to apply for coverage under General Permit 633000, the applicant must submit a complete ground water discharge permit application and a copy of the facility’s Land Application Management Plan. The Land Application Management Plan should be a stand-alone document that provides all information, calculations, internal monitoring procedures, contingency plans, and proposed recordkeeping forms necessary to ensure proper implementation and maintenance of the proposed treatment methodology. The Land application Management plan must be prepared by a qualified professional employed by or hired by the WWTW.

The following outline is provided as a guide for preparing a Land Application Management Plan that meets the expectations of the Division. Each item shown in the outline should be adequately discussed in the plan. If an item is omitted, the applicant should explain why the information is not relevant. Where the Division denies coverage under General Permit 633000 based review of a WWTW’s discharge permit application and Land Application Management Plan, the WWTW may seek coverage under *General Permit 632000 for Domestic Wastewater Treatment Works with Land Treatment* or an individual ground water discharge permit.

#### Example - Land Application Management Plan Contents

- 1) Site Overview
  - a) Provide a brief overview of the wastewater treatment system ownership, location, design, and ability to achieve wastewater treatment through land application at agronomic rates.
- 2) Wastewater Land Application Site Information
  - a) Show the location of each application site indicated on a site map such as a USDA soil survey map, the description of each soil type and slope, and estimated depth to groundwater and bedrock must be included. The map shall clearly show by cross hatching lines, or some other means, exactly which areas have suitable conditions and are proposed for land application.
  - b) Provide either a plat map, a USGS topographic map, or aerial photograph with the proposed site outlined. Aerial photographs are generally available from the county Farm Services Agency (FSA) office.
  - c) For each land application site, provide the minimum separation distances to inhabited dwellings, potable water supply wells, wells serving a community public water supply, surface water bodies and/or vegetative buffer strips, and between the ground surface and bedrock or groundwater.
  - d) Describe the existing vegetative cover at the site. Include plans for any proposed disturbance or planting.
  - e) Describe adjacent land use, drainage, and land features associated with the site.

- f) Provide any available information pertaining to precipitation, evapotranspiration, and infiltration for this site (supplemental irrigation, solar and wind evaporation, plant uptake, infiltration tests).
- 3) Wastewater Storage and Transportation
    - a) Provide an analysis that indicates storage is adequate. Describe the effluent storage capacity during inclement weather and/or frozen ground and any contingency plans have been developed in case of inclement weather.
    - b) Describe the method of pumping the wastewater to any hauling vehicles and describe the type and capacity of the hauling vehicles.
    - c) Explain if application vehicles will be unloaded with a high pressure spraying gun, spreader bar, splash pad, or some other device and how the total volume hauled will be measured.
  - 4) Wastewater Land Application Site Loading Information
    - a) Estimate the total acreage to which the wastewater will be applied.
    - b) Describe the crops to be grown or the dominant vegetation on the land application site, the anticipated harvest and removal schedule, and the intended end use of crops (e.g., pasture grass for a feed crop, corn as a food crop).
    - c) Provide an explanation of how agronomic rates will be determined during the life of the site along with any currently available calculations. Whenever agronomic rates are determined or conditions change (i.e. a change in crops or agronomic rates) an update of the agronomic rate calculations must be filed with the Division;
    - d) Describe the proposed method, rate, and schedule of application and its expected effects on ground water levels.
    - e) If the land application plan uses the root zone for attenuation of effluent components, provide a description of the process and any supporting calculations. Include any available reports on vadoze zone modeling.
    - f) Specify the total volume of wastewater that can be applied to reach the nitrogen needs of the crop. Provide supporting calculations and documentation to support any assumptions made.
    - g) Calculate the per acre loading rate of chloride, phosphorous, and potassium.
  - 5) Best Management Practices
    - a) Describe the best management practices the user intends to employ to ensure that application rates will be controlled to minimize ponding, runoff, and the amount of applied water and associated pollutants that pass through the root zone of the plants.
  - 6) Proposed Recordkeeping
    - a) Provide copies of recordkeeping forms that will be used to demonstrate compliance with land application at agronomic rates. Detailed recordkeeping is required under General Permit 633000.

APPENDIX B

Supplemental Application Requirements for General Permit 622000

Site-Specific Risk Based Analysis

On a case-by-case basis, the Division may approve on-site treatment systems with no ground water monitoring requirements and grant coverage under *General Permit 622000 for Domestic Wastewater Treatment On-Site Systems with Design Capacity Between 2,000 and 10,000 Gallons per Day (GPD) with No Ground Water Monitoring Requirements*. As a guideline, coverage under General Permit 622000 will typically be considered only for facilities that meet the following basic criteria:

- 1) The WWTW shows evidence of advanced treatment to meet the nitrate standard of 10 mg/l as provided in Regulation No. 41, The Basic Standards for Ground Water.

OR

- 1) The depth to ground water underlying the site is greater than 100 feet,
- 2) The soil conditions at the site are appropriate to achieve adequate wastewater treatment, and
- 3) The WWTW meets the minimum set back requirements provided in the *State Board of Health Guidelines on Individual Sewage Disposal Systems (5 CCR1003-6)*.

WWTWs may apply for coverage under General Permit 622000 by submitting a complete ground water discharge permit application and a site-specific risk based analysis. The risk-based analysis should be a stand-alone document that provides all information necessary to demonstrate that ground water monitoring is not necessary to ensure the protection of State waters. The risk-based analysis must be prepared by professional engineer, qualified geologist, or hydrogeologist.

The following outline is provided as a guide for preparing a risk based analysis that meets the expectations of the Division. Each item shown in the outline should be adequately discussed in the plan. If an item is omitted, the applicant or preparer should explain why the information is not relevant. The Division will use the information provided in this analysis to evaluate whether the “no monitoring option” is protective of ground water and appropriate for the treatment system. Where the Division denies coverage under General Permit 622000 based on review of a WWTW’s discharge permit application and risk-based analysis, the WWTW may seek coverage under *General Permit 622000 for Domestic Wastewater Treatment On-Site Systems with Design Capacity Equal to or Greater than 2,000 Gallons Per Day (GPD)* or an individual ground water discharge permit.

Example - Risk Based Analysis Contents

- 1) A description of the extent, depth and types of soils located at the site. This information can be taken from existing maps and documents (e.g. NRCS or USDA soil surveys, USGS maps and reports, county extension office information, etc.).
- 2) The depth to ground water and the local ground water flow direction at the site.
- 3) A stratigraphic column with associated descriptions of the lithology of all unsaturated and saturated geologic units at the site.
- 4) The horizontal and vertical hydraulic conductivity of the geologic units present at the site. This information can be taken from existing documents and reports, or appropriate literature values.
- 5) A map of all existing wells, springs, and other surface water features within one-mile of the site.
- 6) An estimate of the site specific ground water recharge due to precipitation, other site activities, and the proposed discharge to be covered under the permit.
- 7) An assessment of existing ground water quality and calculation of the ground water quality changes due to the permitted activity (e.g. mixing zone calculations, mass loading analysis, site-specific modeling, or similar demonstration of potential impacts to ground water). This analysis will need to indicate that ground water quality standards will be achieved after the permitted discharge.

APPENDIX C

Toxic Pollutants and Hazardous Substances

Volatiles

Acrolein  
 Acrylonitrile  
 Benzene  
 Bromoform  
 Carbon Tetrachloride  
 Chlorobenzene  
 Chlorodibromomethane  
 Chloroethane  
 2-Chloroethylvinyl Ether  
 Chloroform  
 Dichlorobromomethane  
 1,1-Dichloroethane  
 1,2-Dichloroethane  
 1,1-Dichloroethylene  
 1,2-Dichloropropane  
 1,2-Dichloropropylene  
 Ethylbenzene  
 Methyl Bromide  
 Methyl Chloride  
 Methylene Chloride  
 1,1,2,2-Tetrachloroethane  
 Tetrachloroethylene  
 Toluene  
 1,2-Trans-dichloroethylene  
 1,1,1-Trichloroethane  
 1,1,2-Trichloroethane  
 Trichloroethylene  
 Vinyl Chloride

Acid Compounds

2-Chlorophenol  
 2,4-Dichlorophenol  
 2,4-Dimethylphenol  
 4,6-Dinitro-o-cresol  
 2,4-Dinitrophenol  
 2-Nitrophenol  
 4-Nitrophenol  
 P-chloro-m-cresol  
 Pentachlorophenol  
 Phenol  
 2,4,6-Trichlorophenol

Pesticides

Aldrin  
 Alpha-BHC  
 Beta-BHC  
 Gamma-BHC  
 Delta-BHC  
 Chlordane  
 4'4'-DDT  
 4'4'-DDE  
 4'4'-DDD  
 Dieldrin  
 Alpha-Endosulfan  
 Beta-Endosulfan  
 Endosulfane Sulfate  
 Endrin  
 Endrin Aldehyde  
 Heptachlor  
 Heptachlor Epoxide  
 PCB-1242  
 PCB-1254  
 PCB-1221  
 PCB-1232  
 PCB-1248  
 PCB-1260  
 PCB-1016  
 Toxaphene  
 Lindane  
 Mirex  
 Demeton

Base/Neutral

Acenaphthene  
 Acenaphthylene  
 Anthracene  
 Benzidine  
 Benzo(a)anthracene  
 Benzo(a)pyrene  
 3,4-Benzofluoranthene  
 Benzo(ghi)perylene  
 Benzo(k)fluoranthene  
 Bis(2-chloroethoxy)methane  
 Bis(2-chloroisopropyl)ether  
 Bis(2-ethylhexyl)phthalate  
 4 Bromophenyl phenyl ether  
 Butylbenzyl phthalate  
 2-Chloronaphthalene  
 4-Chlorophenyl phenyl ether  
 Chrysene  
 Dibenzo (a,h) anthracene  
 1,2-Dichlorobenzene  
 1,3-Dichlorobenzene  
 1,4-Dichlorobenzene  
 3,3-Dichlorobenzidine  
 Diethyl phthalate  
 Dimethyl phthalate  
 Di-n-butyl phthalate  
 2,4-Dinitrotoluene  
 2,6-Dinitrotoluene  
 Di-n-octyl phthalate  
 1,2-Diphenylhydrazine (as azobenzene)  
 Fluoranthene  
 Fluorene  
 Hexachlorobenzene  
 Hexachlorobutadiene  
 Hexachlorocyclopentadiene  
 Hexachloroethane  
 Indeno(1,2,3 cd) pyrene  
 Isophorone  
 Naphthalene  
 Nitrobenzene  
 N-Nitrosodimethylamine  
 N-Nitrosodi-n-propylamine  
 N-Nitrosodiphenylamine  
 Phenanthrene  
 Pyrene  
 1,2,4-Trichlorobenzene  
 Bis(2-chloroethyl)ether

**APPENDIX C**  
**(continued)**

**Toxic Pollutants and Hazardous Substances**

**Inorganic Toxic Pollutants**

Asbestos

**Hazardous Substances**

|   |   |
|---|---|
| Acetaldehyde                            | Isopropanolamine                                      |
| Allyl alcohol                           | Keithane  |
| Allyl chloride                          | Kepone  |
| Amyl acetate                            | Malathion   |
| Aniline                                 | Mercaptodimethur                                      |
| Benzonitrile                            | Methoxychlor  |
| Benzyl chloride                         | Methyl mercaptan                                      |
| Butyl acetate                           | Methyl methacrylate                                   |
| Butylamine                              | Methyl parathion                                      |
| Captan                                  | Mevinphos   |
| Carbaryl                                | Mexacarbate   |
| Carbofuran                              | Monoethyl amine                                       |
| Carbon disulfide                        | Monomethyl amine                                      |
| Chlorpyrifos                            | Naled   |
| Coumaphos                               | Napthenic acid  |
| Cresol                                  | Nitrotoluene  |
| Crotonaldehyde                          | Parathion   |
| Cyclohexane                             | Phenolsulfanate                                       |
| 2,4 D (2,4 Dichlorophenoxy acetic acid) | Phosgene  |
| Diazinon                                | Propargite  |
| Dicamba                                 | Propylene oxide                                       |
| Dichlobenil                             | Pyrethrins  |
| Dichlone                                | Quinoline   |
| 2,2 Dichloropropionic acid              | Resorcino   |
| Dichlorvos                              | Strontium   |
| Diethyl amine                           | Strychnine  |
| Dimethyl amine                          | Styrene   |
| Dinitrobenzene                          | 2,4,5 T (2,4,5 Trichlorophenoxy acetic acid)          |
| Diquat                                  | TDE (Tetrachlorodiphenylethane)                       |
| Disulfoton                              | 2,4,5 TP [2 -(2,4,5 Trichlorophenoxy) propanoic acid] |
| Diuron                                  | Trichlorofan  |
| Dodecylbenzenesulfonate                 | Triethylamine   |
| Epichlorohydrin                         | Trimethylamine  |
| Ethanolamine                            | Uranium   |
| Ethion                                  | Vanadium  |
| Ethylene diamine                        | Vinyl Acetate   |
| Ethylene dibromide                      | Xylene  |
| Formaldehyde                            | Xylenol   |
| Furfural                                | Zirconium   |
| Guthion                                 |   |
| Isoprene                                |   |

**APPENDIX C  
(continued)**

**Categorical Industries**

|  |  |
|--|--|
| Adhesives and Sealants                     | Ore Mining (applies to the base and precious metals/Subpart B) |
| Aluminum Forming                           | Organic Chemicals Manufacturing                                |
| Auto and Other Laundries                   | Paint and Ink Formulation                                      |
| Battery Manufacturing                      | Pesticides   |
| Coil Coating                               | Petroleum Refining   |
| Copper Forming                             | Pharmaceutical Preparations                                    |
| Electrical and Electronic Components       | Photographic Equipment and Supplies                            |
| Electroplating                             | Plastic and Synthetic Materials Manufacturing                  |
| Explosives Manufacturing                   | Plastic Processing   |
| Foundries                                  | Porcelain Enameling  |
| Gum and Wood (all subparts except D and F) | Printing and Publishing  |
| Subpart D - tall oil rosin                 | Pulp and Paperboard Mills                                      |
| Subpart F - rosin-based derivatives        | Rubber Processing  |
| Inorganic Chemicals Manufacturing          | Soap and Detergent Manufacturing                               |
| Iron and Steel Manufacturing               | Steam Electric Power Plants                                    |
| Leather Tanning and Finishing              | Textile Mills (Subpart C - Greige Mills not included)          |
| Mechanical Products Manufacturing          | Timber Products Processing                                     |
| Nonferrous Metals Manufacturing            |  |